



# Project Details

## Mwiyogo Primary School West Nyeri, Kenya

### OVERVIEW

This document describes the need, elements, and costs of an extensive renovation at the Mwiyogo Primary School in West Nyeri, Kenya. The project includes nine sub-projects. The total cost is \$58,365. TGUP has completed more than 90 education-focused projects in Kenya.

### PROJECT PARTNERS



**The Global Uplift Project (TGUP)** helps Western donors build small-scale infrastructure projects in developing countries. Since its founding in 2007, TGUP has completed more than 370 such projects in 25 countries in Asia, Central America, and Africa. TGUP is a registered 501c3 nonprofit.

**Kiini Sustainable Initiative (KISI)** works with communities in Central Kenya to improve access to education for all citizens regardless of income or ethnicity. It has completed more than 90 projects with TGUP at schools in Central Kenya. KISI is a registered Non-

Governmental Organization under the Kenyan NGO coordinating board.

### PROJECT MANAGEMENT

#### **The Global Uplift Project**

##### **Sponsoring Executive:**

Robert Freeman  
Executive Director  
robertf@tgup.org  
650-575-3434

##### **Supervising Executive:**

Cathy Dwulet  
Director, Global Field Operations  
cathyd@tgup.org  
650-269-5598

## **Kiini Sustainable Initiative**

### **Sponsoring Executive:**

Philip Kabiru  
Executive Director  
Phildikab@yahoo.com

### **Supervising Executive:**

David Gichuki  
Site manager  
kiinisustainable.initiative@gmail.com

## **MWIYOGO COMMUNITY**

Mwiyogo is a growing village located in a rural area of Mweiga division in Kieni West in Nyeri County, with a population of 23,467 people. There are 9345 households with an average of 5-8 children each. Most



local people are casual laborers, what are called “bebabeba”, who live in houses made of wood planks, roofed with iron sheets.

The majority of families share pit latrines that are outdated and at risk of collapse and most of the schools lack basic facilities and sufficient classroom space. The area receives very low rainfall, so the community relies on wells and water harvesting for domestic use. Some homes have electricity, depending on the grid and the family income. Most do not. Without electricity or running water, life is hard for most families. The school is a bright spot for local children, a place of order and structured opportunities to learn new pathways for life.

## **MWIYOGO MIXED DAY PRIMARY SCHOOL**

Mwiyogo Mixed Day Primary School is a public school which was established in 1966. It is licensed by both Local and National education authorities. The school started with 5 pupils and enrollment increased over the years to more than 400. However, because of the crumbling infrastructure, the school has had to limit the number of students to 327 (157 boys and 170 girls). There are 10 teaching staff and 2 support staff. Enrollment is open, without discrimination, to students of all religions and ethnicities.



In 2022, TGUP funded new latrines, but otherwise the entire school needs to be renovated, including: an additional classroom + furniture, electricity, water, new kitchen & jikos, gutters & slabs for water tanks, and a playground. The school sits on a 7-acre plot with plenty of room for improvements.

Most parents work at foreign-owned plantations producing coffee, tropical fruits, etc. for export, or subsistence farmers growing side crops of maize, onions, Irish potatoes, etc. for local cash generation. Most families live below the poverty line, meaning persistent food and income insecurity.

## SUMMARY OF PROJECT ELEMENTS

TGUP, through its partner, Kiini, will provide design, materials, and supervision to complete the following ten sub-projects, listed in order of highest priority. The logic of the order is that the earliest projects—water, electricity, etc.—amplify



the effectiveness of all existing structures. They are also the least expensive. Bigger, more expensive sub-projects—kitchen, classroom, playground—will be completed once all the common infrastructure elements are in place. In this way, the benefits of the overall Project begin to flow almost immediately.

1. **Water pipe installation:** Install 100 meters of piping to connect to the Mwiyo water project. \$3,423
2. **Kitchen Water storage:** Install gutters; connect to a 5,000-liter water tank. \$1,322

3. **Gutters and tanks**: build concrete slabs for existing water tanks and install gutters on all classrooms. \$3,734
4. Install **electricity** to the entire school. \$2,327
5. **Furniture**: Provide 50 locking desks, 50 regular desks, and chairs. Desks will be shared amongst the pupils in lower grades. \$5,457
6. Build a **kitchen** measuring 30'x 15. \$12,128
7. Install **Jikos** (**commercial cooking vats**): One single jiko (350 litres) and one double jiko to allow for multiple foods to be prepared at once. \$5,439
8. Build a new **classroom** measuring 28'x 28'. \$16,271
9. Install **play equipment** including 2 sets of slides, 2 set of seesaws, 2 sets of swings with 4 seats each, and 2 set of jungle bars. \$8,264



## **BUDGET SUMMARY**

Water piping:	\$3,423
Water storage:	\$1,322
Gutters and tank slabs:	\$3,734
Electricity:	\$2,327
Furniture:	\$5,457
Kitchen:	\$12,128
Jikos:	\$5,439
Classroom:	\$16,271
Play equipment:	<u>\$8,264</u>
<b>Total requested</b>	<b>\$58,365</b>

The summative effect of these renovations will be a dramatic improvement in the capacity of the school and its staff to provide high quality education for the students. Improvements will last from 10 (furniture, jikos) to 30+ years (classroom, kitchen).

## Detailed Budgets

Classroom Budget					
SUB-STRUCTURE/SUPERSTRUCTURE	Units	Quantity	Rate	Ksh	US\$ 140
Concrete blocks 9"	NO	800	91	72,760	\$520
Concrete blocks 6"	NO	1,545	102	157,049	\$1,122
Cement 50kg	Bags	210	856	179,760	\$1,284
Crushed stones/ballast	Tonnes	30	2,568	77,040	\$550
Murram	Tonnes	45	2,140	96,300	\$688
Sand	Tonnes	45	3,317	149,265	\$1,066
BRC WireMesh	Rolls	2	37,450	74,900	\$535
Ant termite poison 1ltr	NO	2	4,280	8,560	\$61
D-10 deformed bars	NO	35	1,455	50,932	\$364
D-12 deformed bars	NO	12	1,562	18,746	\$134
D-16 deformed bars	NO	16	2,675	42,800	\$306
Polythene sheet	NO	1	13,375	13,375	\$96
R-6 bars	NO	31	856	26,536	\$190
Concrete wire 2"	Roll	1	10,165	10,165	\$73
Brick wire 4"	Roll	7	7,276	50,932	\$364
Brick force wire 6"	Roll	12	460	5,521	\$39
Air vents	Pair	10	375	3,745	\$27
Tie wire (2.5mm)	Rolls	4	535	2,140	\$15
DPc 8"	Roll	1	3,745	3,745	\$27
DPc 6"	Roll	3	1,284	3,852	\$28
Wire nails 5"	kgs	5	268	1,338	\$10
Wire nails 4"	Kgs	5	268	1,338	\$10
wire nails 3"	Kgs	4	268	1,070	\$8
wire nails 2"	Kgs	4	268	1,070	\$8
steel nails 4"	Kgs	4	535	2,140	\$15
steel nails 3"	Kgs	4	535	2,140	\$15
steel nails 2"	kgs	4	535	2,140	\$15
Wheelbarrow	NO	2	6,420	12,840	\$92
spade	NO	2	1,070	2,140	\$15
shovel	NO	2	963	1,926	\$14
Hoe	NO	2	856	1,712	\$12
claw hammer	NO	3	696	2,087	\$15
Hacksaw blade	No.	4	321	1,284	\$9
cutting disc	NO	2	455	910	\$6
drums 210 litres	NO	2	5,350	10,700	\$76
Metal buckets	NO	4	1,070	4,280	\$31
<b>Subtotal</b>				<b>1,097,237</b>	<b>\$7,837</b>

<b>ROOFING</b>					
IT4 roofing sheets 3m	NO	37	4,815	178,155	\$1,273
IT4 roofing sheets 2m	NO	17	4,280	72,760	\$520
IT4 Ridges 2mx0.5mm	NO	8	1,070	8,560	\$61
u hooks roofing nails	NO	30	535	16,050	\$115
spider trusses ST250.4.0m	NO	6	1,124	6,741	\$48
<b>Subtotal</b>				<b>282,266</b>	<b>\$2,016</b>
<b>CARPENTRY WORKS AND TIMBER</b>					
Timber 200x25x5m	NO	23	1,498	34,454	\$246
Timber 150x50x5m	NO	13	1,284	16,692	\$119
Timber 100x50x5m	NO	7	1,177	8,239	\$59
Timber 50x50x5m	NO	20	963	19,260	\$138
10mm thick soft board	NO	3	910	2,729	\$19
Block board 18mm	NO	28	1,926	53,928	\$385
Wood screws	pkt	1	535	535	\$4
<b>Subtotal</b>				<b>135,837</b>	<b>\$970</b>
<b>METAL WORKS</b>					
Door frame and steel door	NO	1	19,260	19,260	\$138
Installation of cables and electricity	set	1	48,150	48,150	\$344
Verandah Supporters	NO	6	8,025	48,150	\$344
<b>Subtotal</b>				<b>115,560</b>	<b>\$825</b>
<b>PAINTING AND FINISHING</b>					
Undercoat 20 litre bucket	NO	3	3,210	9,630	\$69
PVA cream 20 litre bucket	NO	4	2,996	11,984	\$86
Green chalkboard 4 litre bucket	NO	2	3,745	7,490	\$54
Green gloss 4 litre bucket	NO	1	3,745	3,745	\$27
Black bituminous 4 litres	NO	1	3,745	3,745	\$27
Thinners 5 litres	NO	6	1,605	9,630	\$69
Clear varnish 4 litre bucket	NO	2	2,247	4,494	\$32
Wood primer 5 litre bucket	NO	1	2,354	2,354	\$17
Wood glue 4 litre	NO	1	1,605	1,605	\$11
Window glazing	Item	1	37,450	37,450	\$268
windows (metal)	NO	5	8,560	42,800	\$306
Painting glasses	sheet	4	5,350	21,400	\$153
<b>Subtotal</b>				<b>156,327</b>	<b>\$1,117</b>
Plans, permits, inspection, misc				101,992	\$729
Labor				409,810	\$2,927
Project management				379,663	\$2,712
<b>Community contribution</b>				<b>-400,715</b>	<b>-\$2,862</b>
<b>Total Requested</b>				<b>2,277,977</b>	<b>\$16,271</b>

<b>Furniture: Locking desks, chairs, and desks budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
50 locking desks and chairs @7000	374,500	\$2,675
50 desks and chairs @6000	321,000	\$2,293
Transportation	32,100	\$229
facilitation	16,050	\$115
<b>Total</b>	<b>743,650</b>	<b>\$5,312</b>
<b>Community contribution</b>	<b>-107,000</b>	<b>-\$764</b>
Project management	127,330	\$910
<b>Total requested</b>	<b>763,980</b>	<b>\$5,457</b>

<b>Electricity budget</b>		
<b>ITEM</b>	<b>ksh</b>	<b>US\$ 140</b>
15 rolls 1.5mm2, 2.5mm2, 4.0mm2 T/E(red,black green)	117,700	\$841
20 pcs *4fts fluorescent fittings (L.E.D)	46,010	\$329
120metres armoured cable	38,520	\$275
1Gang switch- 20pcs	2,568	\$18
Double cut out- 1pcs	1,926	\$14
Pendant complete holders-10pcs	1,284	\$9
9mm2 tower clips-4 packets	642	\$5
Junction boxes- 20 pcs	3,210	\$23
20mm2 conduits 60pcs	16,050	\$115
20mm2 metal sandles-60pcs	1,284	\$9
Insulating tape- 2pcs	257	\$2
1" wood screws- 2 packets	428	\$3
Socket outlet – 10pcs	2,675	\$19
4 way consumer unit	4,815	\$34
Double sockets -10pcs	5,350	\$38
Double switch boxes – 10pcs	2,675	\$19
Single switch boxes- 10pcs	1,070	\$8
20mm2 4way boxes- 10pcs	428	\$3
Tangit glue	428	\$3
2 gang switch – 10pcs	1,284	\$9
Photo cell	3,745	\$27
Transportation	10,700	\$76

Labor	26,750	\$191
Plans, Permits, Inspection, misc	8,453	\$60
<b>Total</b>	<b>298,252</b>	<b>\$2,130</b>
<b>Community contribution</b>	<b>-26,750</b>	<b>-\$191</b>
Project management	54,300	\$388
<b>Total requested</b>	<b>325,802</b>	<b>\$2,327</b>

<b>Kitchen budget</b>					
<b>SUB-STRUCTURE/SUPERSTRUCTURE</b>	<b>Units</b>	<b>Quantity</b>	<b>Rate</b>	<b>Ksh</b>	<b>US\$ 140</b>
Concrete blocks 9"	NO	300	91	27,285	\$195
Concrete blocks 6"	NO	800	102	81,320	\$581
Cement 50kg	Bags	120	856	102,720	\$734
Crushed stones/ballast	Tonnes	14	2,568	35,952	\$257
Murram	Tonnes	20	2,140	42,800	\$306
Sand	Tonnes	28	3,317	92,876	\$663
BRC WireMesh	Rolls	2	37,450	74,900	\$535
Ant termite poison 1ltr	NO	2	4,280	8,560	\$61
D-10 deformed bars	NO	14	1,455	20,373	\$146
D-12 deformed bars	NO	8	1,562	12,498	\$89
D-16 deformed bars	NO	11	2,675	29,425	\$210
Polythene sheet	NO	1	13,375	13,375	\$96
R-6 bars	NO	22	856	18,832	\$135
Concrete wire 2"	Roll	1	10,165	10,165	\$73
Brick wire 4"	Roll	5	7,276	36,380	\$260
Brick force wire 6"	Roll	8	460	3,681	\$26
Air vents	Pair	6	375	2,247	\$16
Tie wire (2.5mm)	Rolls	3	535	1,605	\$11
DPc 8"	Roll	1	3,745	3,745	\$27
DPc 6"	Roll	3	1,284	3,852	\$28
Wire nails 5"	kgs	4	268	1,070	\$8
Wire nails 4"	Kgs	4	268	1,070	\$8
wire nails 3"	Kgs	4	268	1,070	\$8
wire nails 2"	Kgs	3	268	803	\$6
steel nails 4"	Kgs	3	535	1,605	\$11
steel nails 3"	Kgs	3	535	1,605	\$11
steel nails 2"	kgs	3	535	1,605	\$11



	<b>Subtotal</b>				<b>631,418</b>	<b>\$4,510</b>
<b>ROOFING</b>						
IT4 roofing sheets 3m	NO	18	4,815	86,670	\$619	
IT4 roofing sheets 2m	NO	9	4,280	38,520	\$275	
IT4 Ridges 2mx0.5mm	NO	5	1,070	5,350	\$38	
u hooks roofing nails	NO	9	535	4,815	\$34	
spider trusses ST250.4.0m	NO	5	1,124	5,618	\$40	
	<b>Subtotal</b>				<b>140,973</b>	<b>\$1,007</b>
<b>CARPENTRY WORKS AND TIMBER</b>						
Timber 200x25x5m	NO	13	1,498	19,474	\$139	
Timber 150x50x5m	NO	7	1,284	8,988	\$64	
Timber 100x50x5m	NO	4	1,177	4,708	\$34	
Timber 50x50x5m	NO	9	963	8,667	\$62	
	<b>Subtotal</b>				<b>41,837</b>	<b>\$299</b>
<b>METAL WORKS</b>						
Door frame and steel door	NO	1	19,260	19,260	\$138	
Installation of cables and electricity	set	1	26,750	26,750	\$191	
Verandah Supporters	NO	4	8,025	32,100	\$229	
	<b>Subtotal</b>				<b>78,110</b>	<b>\$558</b>
<b>PAINTING AND FINISHING</b>						
Undercoat 20 litre bucket	NO	2	3,210	6,420	\$46	
PVA cream 20 litre bucket	NO	2	2,996	5,992	\$43	
Green gloss 4 litre bucket	NO	1	3,745	3,745	\$27	
Black bituminous 4 litres	NO	1	3,745	3,745	\$27	
Thinners 5 litres	NO	3	1,605	4,815	\$34	
Clear varnish 4 litre bucket	NO	1	2,247	2,247	\$16	
Wood primer 5 litre bucket	NO	1	2,354	2,354	\$17	
Wood glue 4 litre	NO	1	1,605	1,605	\$11	
Window glazing	Item	1	32,100	32,100	\$229	
windows (metal)	NO	4	8,560	34,240	\$245	
Painting glasses	sheet	2	5,350	10,700	\$76	
	<b>Subtotal</b>				<b>107,963</b>	<b>\$771</b>
Plans, permits, inspection, misc				101,992	\$729	
Labor				214,000	\$1,529	
Project management				231,159	\$1,651	
<b>Community contribution</b>				<b>150,500</b>	<b>\$1,075</b>	
	<b>Total Requested</b>				<b>1,697,951</b>	<b>\$12,128</b>

<b>Kitchen water tank and gutters budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
Gutters – 10 pcs	30,000	\$214
Gutters connectors- 5	5,000	\$36
Gutters back- 10	4,000	\$29
Gutter chips- 34	10,200	\$73
Screws 11/2	800	\$6
Down pipes3” -8pcs	9,600	\$69
Waste bend -6	2,400	\$17
Tangit 500ml	1,400	\$10
Gutter amlet-5	5,000	\$36
Backnut ¾”-6	1,200	\$9
Thread seech -4	200	\$1
Ppr elbow ¾”-4	320	\$2
Male adapter ¾ -4	800	\$6
Gate valve ¾”-1	3,500	\$25
Female adapter ¾”-4	800	\$6
Pegler biptap ¾”-2	4,000	\$29
PPR pipe ¾”-20	5,000	\$36
labour	15,000	\$107
Cement,sand and ballast	20,000	\$143
5000 litres storage tank	45,000	\$321
<b>Community contribution</b>	<b>-10,000</b>	<b>-\$71</b>
Project management	30,856	\$220
<b>Total requested</b>	<b>185,076</b>	<b>\$1,322</b>

<b>Jikos for kitchen budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
Single pot firewood (350 Litres)	306,020	\$2,186
Double pot firewood(100X100)	315,650	\$2,255
chimneys	12,840	\$92
Slab installation	26,750	\$191
labour	26,750	\$191
<b>Community contribution</b>	<b>-53,500</b>	<b>-\$382</b>
Project management	126,902	\$906
<b>Total requested</b>	<b>761,412</b>	<b>\$5,439</b>

<b>Water pipe installation budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
Acquisition of two tanks each 5000 litres	98,440	\$703
3" pipes-hdu- 100 metres	80,250	\$573
2" pipes- 2 rolls	64,200	\$459
¾" -5 rolls of pipes	68,480	\$489
½" pipes- 2 rolls	37,450	\$268
Ty ½" -50ft	11,610	\$83
J I pipes ½" -3	9,363	\$67
Gate Valve ½" - 6	12,840	\$92
Valve socket 1/2" - 12	3,852	\$28
Connectors/ saddles/accessories	23,540	\$168
labour	42,800	\$306
<b>Total</b>	<b>452,824</b>	<b>\$3,234</b>
<b>Community contribution</b>	<b>-53,500</b>	<b>-\$382</b>
Project management	79,865	\$570
<b>Total requested</b>	<b>479,189</b>	<b>\$3,423</b>

<b>Gutter and slab installation budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
Gutters 6 classrooms- 28pcs	83,888	\$599
Gutters connectors- 18 pcs	19,260	\$138
Gutters back -28pcs	13,482	\$96
Gutters chips-100	21,400	\$153
Down pipes 3"-25 pcs	21,400	\$153
Waste bends-18	4,815	\$34
Tangit 2.5 litres	5,350	\$38
Gate Valve 3/4"- 6	19,260	\$138
Adapters male/female -10 pairs and other accessories	5,350	\$38
PPR pipes- 3 roll	28,890	\$206
Pegler biptap ¾-5	16,050	\$115
Slab concrete 1:3:4	147,232	\$1,052
5000 litre tank	49,220	\$352

labour	53,500	\$382
<b>Total</b>	<b>489,097</b>	<b>\$3,494</b>
<b>Community contribution</b>	<b>-53,500</b>	<b>-\$382</b>
Project management	87,119	\$622
<b>Total requested</b>	<b>522,716</b>	<b>\$3,734</b>

<b>Playground equipment budget</b>		
<b>Item</b>	<b>Ksh</b>	<b>US\$ 140</b>
2 swing with 4 parts each @78,790	168,611	\$1,204
2 seesaws @43,650	93,411	\$667
2 sets jungle gym bars@ 103,215	220,880	\$1,578
2 sets climbing structure with slides@ 165,887	354,998	\$2,536
Transportation	32,100	\$229
facilitation	19,260	\$138
Levelling of the field	128,400	\$917
labour	53,500	\$382
<b>Total</b>	<b>1,071,160</b>	<b>\$7,651</b>
<b>Community contribution</b>	<b>-107,000</b>	<b>-\$764</b>
Project management	192,832	\$1,377
<b>Total requested</b>	<b>1,156,992</b>	<b>\$8,264</b>

## **SUMMARY AND EVALUATION:**

We rate this a **high priority project** based on several factors:

- Success with a similar mega-renovation project at Kiahuko school;
- Existing resources are overstretched and deficient;
- The quality of the school's administration and staff is considered high;
- Staged sub-project design amplifies all existing resources immediately;
- Expansion will open up access for new primary school classes;
- The school faculty and administration are cooperative;
- Kiini has an excellent working relationship with the local community;
- TGUP's long and productive history of working with Kiini (since 2009);
- The project conforms with both TGUP's and Kiini's core missions;
- The project is endorsed by both Ministries of Education and Health
- Project will serve as a model for expansion of other schools in the area.